believed that the 5,568,560 patent was cited as a mistake.

Applicants also note that in the Notice of References Cited, US Patents Nos. 4,568,560 and 4,824,681 issued to Schobel.

Applicants compared the teaching of both references with the comments of the Examiner and believe that US Patent 4,568,560 is the correct reference number.

Claims 20, 24-25, 32-33, and 37 have been amended. Claim 42 has been added.

The claims have been amended by adding the limitation that the core is produced by **a fluidized bed spray granulation**. This granulation method leads to a more spherical granule compared to an agglomeration method mentioned in the Schobel reference. The more spherical the particles, the more uniform the coating will be in terms of thickness and areas of defects. The use of plasticizers is not needed to support spreading around the particle. The better the uniformity of the coating, the better the controlled release function of the coating.

Claims 24, 32, and 37 have been amended by deleting the term "ethylcellulose" from the markush group. Thus, amended claims require that the modified cellulose is selected from the group consisiting of methyl cellulose, hydroxypropyl cellulose, hydroxypropyl methyl cellulose, ethyl methyl cellulose, or mixture thereof.

Nowhere in the Schobel reference can be found the teaching that the modified cellulose is selected from the group consisiting of methyl cellulose, hydroxypropyl cellulose,

hydroxypropyl methyl cellulose, ethyl methyl cellulose, or mixture thereof.

Claim 42 includes the close transitional phrase **consisting of;** this terminology is interpreted to mean that any embodiment that does not contain exactly (no more or no less than) the elements recited in the claims is not considered to be encompassed by the claim. The terminology may include the presence of trace amounts of additional components that are normally present as impurities.

Applicants believe that all the claims are now in condition for allowance.

Office Action

Turning to the Office Action, the paragraphing of the Examiner is adopted.

Paragraphs 1-2 (Anticipation)

The Examiner rejects Claims 20-41 under 35 U.S.C. §102(b) as being anticipated by US Patent 5,568,560 to Schobel.

The position of the Examiner can be found on page 2 of the Office Action.

Applicants respectfully traverse.

For a reference to anticipate, it must disclose every element of the claim.

Applicants reviewed the reference and note that compared with amended Claims 20, 25, and 33, the reference fails to teach: the particles are produced by a fluidized bed spray

granulation and the coating comprises modified cellulose.

The fluidized bed spray granulation method of the present invention leads to a more spherical granulate than the agglomeration method used by the reference.

The more spherical the particles, the more uniform the coating will be in terms of thickness and areas of defects. Thus, the use of plasticizers is not needed to support spreading around the particle. The better the uniformity of the coating, the better the controlled release function of the coating.

Applicants also note that the Shobel reference does not specifiy the granulation method. It is mentioned that the method of granulation is not critical for the invention (Col. 4, line 41).

Applicants also note that the Schobel reference uses the enteric compound (**acrylic polymer not the modified cellulose**) in the coating to control the release, not the modified cellulose.

Applicants reviewed the reference and note that compared with Claims 24, 32, and 37, the reference fails to teach that the modified cellulose is selected from the group consisiting of methyl cellulose, hydroxypropyl cellulose, hydroxypropyl methyl cellulose, ethyl methyl cellulose, or mixture thereof.

The Schobel reference discloses a hydrophilic solid particle comprising ethylcellulose in a coating.

Applicants would like to point out to the Examiner that the amended claims require that the modified cellulose is selected from the group consisting of methyl cellulose, hydroxypropyl cellulose, hydroxypropyl methyl cellulose, ethyl methyl

cellulose, or mixture thereof.

Nowhere in the Schobel reference can be found the teaching that the modified cellulose is selected from the group consisiting of methyl cellulose, hydroxypropyl cellulose, hydroxypropyl methyl cellulose, ethyl methyl cellulose, or mixture thereof.

In the present invention, ethylcellulose is the least preferred, since due to its water insolubility, there would have to be organic solvents used in the coating process.

Finally, Applicants would like to point out to the Examiner that:

The Schobel reference uses the enteric compound (**acrylic polymer not the modified cellulose**) in the coating to control the release, not the ethylcellulose. Ethylcellulose is only used as the film former.

In column 4, lines 14-15), the reference indicated that: "Enteric composition are incorporated into the film former coating in order to control the rate of release of flavoring agent or fragrance".

In the description of the experiment where the encapsulated particles are added to water, and fragrance is released in a time-related manner (col. 7, lines 25-31), the control of the release is based on the enteric compound (acrylic latex) which is not water soluble at pH around 7 (col. 7, lines 16-17). The enteric compound was deliberately chosen to be water insoluble

in media with pH below 5,5, and water soluble in media with pH of 5,5 or greater (col. 3, lines 53 - 63).

Thus, the enteric compound used in the coating controls the release rate depending on the pH in the application.

In the present invention, the release of flavor/fragrance **does depend on the temperature and the thickness of the modified cellulose coating**. An influence of the pH on the release rate is not wanted. There are applications where the pH is below 5,5 (i.e. soft drinks, soups), and where the use of an enteric compound would not be appropriate.

Thus, the use of modified celluloses to control the flavor/fragrance release at higher temperatures was not obvious and not foreseeable by the Schobel reference.

Applicants reviewed the reference and note that compared with amended Claim 42, the reference fails to teach a casing **consisting of** a modified cellulose which encases at least one of aromas and perfumes.

The Schobel reference describes a coating composition that always has to comprise the three following components:

a water insoluble film forming composition (i.e. ethylcellulose),

an enteric compound (i.e. acrylic polymer)

a plasticizer (i.e. dibutylsebacate)

whereas the ratio of the film former and the enteric compound is between 5:1 and 0,5:1. The plasticizer is used in amounts 18-40% of the film former.

Applicants note that Claim 42 includes the close transitional phrase **consisting of**; this terminology is interpreted to mean that any embodiment that does not contain exactly (no more or no less than) the elements recited in the claims is not considered to be encompassed by the claim. The terminology may include the presence of trace amounts of additional components that are normally present as impurities.

The present invention does not use any enteric compound or any plasticizer in the coating. In fact, it is the purpose of the present invention not to include any other materials in the coating apart from the modified celluloses. **The control of the flavor/fragrance release is solely based on the swelling and diffusion characteristics of the modified cellulose at different temperatures and the reversibility of this effect.**

Additional ingredients such as soluble enteric compound **in amounts mentioned** in the Schobel reference would change the functionality significantly.

Further, Applicants note that since the enteric compound is **water soluble** (col. 2, lines 1-2), the gel network formed by the ethylcellulose will be weakened once added to water. The barrier properties for volatile flavors/fragrance molecules at higher temperatures will decrease.

Accordingly, withdrawal of the rejection is respectfully requested.

Favorable consideration and early indication of allowability is respectfully requested. Should any minor points remain prior to issuance of a Notice of Allowance, the Examiner is requested to telephone the undersigned at the below listed telephone number.

Respectfully submitted,

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Dated: **February 10, 2003**

CERTIFICATE OF MAILING AND AUTHORIZATION TO CHARGE

I hereby certify that a copy of the foregoing AMENDMENT A for U.S. Application No. 09/787,180 filed May 10, 2001, was deposited in first class U.S. mail, postage prepaid, addressed: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on **February 10, 2003.**

The Commissioner is hereby authorized to charge any additional fees, which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account No. 16-0877.

Evelyn A. Defilló

VERSION WITH MARKINGS TO SHOW CHANGES MADE HEREBY ATTACHED

The Examiner is requested to accept the marked-up version as it is based on the previous version, which when modified as below, produces the clean version submitted with the current amendment.

IN THE CLAIMS:

Please amend the claims as follows:

20. (Once amended) Encapsulated aromas and/or perfumes comprising:

hydrophilic solid particles in which at least one of aromas and perfumes are enclosed, the hydrophilic solid particles obtained by a fluidized bed spray granulation process, and

a casing [which comprises] comnprising a modified cellulose which encases [or contains] the at least one of aromas and[/or] perfumes, said [hydrophilic solid particules] casing having reversible gel formation as temperature increases.

24. (Once amended) Encapsulated aromas and/or perfumes comprising hydrophilic solid particles comprising a casing consisting of a modified cellulose which encases at least one of aromas and perfumes, said casing having reversible gel formation as temperature increases,

[Aromas and/or perfumes according to claim 20,] wherein said modified cellulose is selected from the group consisiting

of methyl cellulose, hydroxypropyl cellulose, hydroxypropyl methyl cellulose, ethyl methyl cellulose, [ethyl cellulose] or mixture thereof.

25. (Once amended) A process for producing encapsulated aromas and/or perfumes, the process comprising the step of:

providing at least one of aroma and perfume particles which are produced by a fluidized bed spray granulation;

[furnishing a] coating [or adding a coating to] the at least one of aroma [particles or] and perfume particles [wherein said] with a [coating comprises] a modified cellulose, wherein reversible gelation occurs with temperature increase.

32. (Once amended) A process for producing encapsulated aromas and/or perfumes, the process comprising the step of:

providing at least one of aroma and perfume particles which are produced by a fluidized bed spray granulation;

coating the at least one of aroma and perfume particles with a modified cellulose, wherein reversible gelation occurs with temperature increase;

[A process according to claim 25,] wherein said modified cellulose is selected from the group consisiting of methyl cellulose, hydroxypropyl cellulose, hydroxypropyl methyl cellulose, ethyl methyl cellulose, [ethyl cellulose] or mixture thereof.

33. (Once amended) A process for enriching products with at

least one of aromas and[/or] perfumes, the process comprising the step of:

adding said at least one of encapsulated aromas and[/or] perfumes to the products, wherein said at least one of encapsulated aromas and[/or] perfumes comprise hydrophilic solid particles obtained by a fluidized bed spray granulation process, wherein the hydrophilic solid particles comprise a casing having a [which comprises] modified cellulose which encases said at least one of aromas and[/or] perfumes, said [hydrophilic solid particules] casing having reversible gel formation as temperature increases.

37. (Once amended) A process for enriching products with at least one of aromas and perfumes, the process comprising the step of:

adding said at least one of encapsulated aromas and perfumes to the products, wherein said at least one of encapsulated aromas and perfumes comprise hydrophilic solid particles obtained by a fluidized bed spray granulation process, wherein the hydrophilic solid particles comprise a casing having a modified cellulose which encases said at least one of aromas and perfumes, said casing having reversible gel formation as temperature increases;

[A process according to claim 33,] wherein said modified cellulose is selected from the group consisiting of methyl cellulose, hydroxypropyl cellulose, hydroxypropyl methyl

cellulose, ethyl methyl cellulose, [ethyl cellulose] or mixture thereof.

Please add the following claim:

-- 42. At least one of encapsulated aromas and perfumes comprising:

hydrophilic solid particles in which the at least one of aromas and perfumes are enclosed, the hydrophilic solid particles obtained by a fluidized bed spray granulation process, and

a casing which consisting of a modified cellulose which encases the aromas and/or perfumes, said casing having reversible gel formation as temperature increases.--